



US006359353B1

(12) **United States Patent**
Bevington

(10) **Patent No.:** **US 6,359,353 B1**
(45) **Date of Patent:** **Mar. 19, 2002**

(54) **SUBMERSIBLE MOTOR UNIT**

(75) **Inventor:** **Jack T. Bevington, Ashland, OH (US)**

(73) **Assignee:** **F. E. Myers division of Pentair Pump Group, St. Paul, MN (US)**

(*) **Notice:** Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) **Appl. No.:** **09/621,094**

(22) **Filed:** **Jul. 21, 2000**

(51) **Int. Cl.⁷** **H02K 5/10; H02K 5/22; H02K 11/00**

(52) **U.S. Cl.** **310/87; 310/43; 310/72; 417/422; 417/423.3**

(58) **Field of Search** **310/87, 89, 43, 310/71, 72, 91; 417/422, 423.5, 366, 423.8, 406, 410.3, 423.3; 318/195, 786; 439/271**

(56) **References Cited**

U.S. PATENT DOCUMENTS

3,135,884 A * 6/1964 Luenberger 310/87
3,604,964 A * 9/1971 Conrad et al. 310/87

3,631,275 A * 12/1971 Conrad et al. 310/87
3,761,750 A * 9/1973 Green 310/87
4,546,300 A 10/1985 Shaikh 318/786
4,649,305 A * 3/1987 Morrill 310/72

* cited by examiner

Primary Examiner—Tran Nguyen

(74) *Attorney, Agent, or Firm*—Amin & Turocy, LLP

(57) **ABSTRACT**

A submersible motor unit is used to drive a pump and is submerged with the pump in liquid (water). The motor unit includes a tubular housing member and a tubular inner member which is enclosed by and disposed in a coaxial relationship with the tubular housing member. A stator is disposed in a stator chamber formed between the tubular inner member and the tubular housing member. A rotor is disposed in a rotor chamber disposed within the inner member. End walls close opposite ends of the tubular housing member and the tubular inner member. An annular capacitor is disposed in the stator chamber in an axially spaced apart relationship with the stator. The capacitor extends around the rotor chamber. A body of potting compound is disposed in the stator chamber and at least partially encloses the stator and the capacitor.

5 Claims, 2 Drawing Sheets

